

## **Tracee Lynn Jamison, Ph.D EE**

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### **EDUCATION**

- Ph.D. in Electrical Engineering May 2003  
North Carolina A&T State University, Greensboro, NC.  
Dissertation: "Lithium Niobate Cylinder Fiber"
- Master of Science in Electrical Engineering December 1993  
Michigan State University, East Lansing, Michigan  
Concentration: Computer Engineering and Semiconductor Device Theory
- Bachelor of Science in Electrical Engineering May 1992 (cum laud)  
Howard University, Washington, D.C.

### **LANGUAGE PROFICIENCY**

English – Excellent (reading, writing and speech)

French – Poor (reading, writing and speech)

Spanish

- Reading – Fair
- Writing and Speech – Poor

### **EMPLOYMENT HISTORY**

NASA GSFC. Lead Quality Engineer for MAVEN NGIMs Instrument	12/2011-present
NASA GSFC. Lead Parts Engineer for MAVEN	9/2009 - present
NASA Administrator's Fellowship Program (NAFP) Fellow	9/2008 – 9/2009
NASA GSFC, VHDL Design for FPGA for Synthetic Aperture RADAR	1/2008 – 12/2008
NASA GSFC, Photonics Research/Tester in Fiber Optic Devices,	5/2007- 1/2008
NASA Visiting Professor, Salish Kootenai Tribal College	3/2006-8/2008
NASA GSFC, Laser Risk Reduction Program Knowledge Capture Management Lead	6/2004 – 6/2006
NASA GSFC, Laser Risk Reduction Program Nonlinear frequency doubling crystals	6/2003-6/2004
NASA GSFC Working on Dissertation	4/2001- 5/2003
NASA GSFC Summer Researcher	May-Aug 2000
NASA GCFC Summer Researcher	May-Aug 1999
Information Technology Computer Consultant	9/1995-8/1998
Professor Emerson College Preparatory School	9/1994-9/1995
Engineer/Manager, General Electric Company, Plainville, CT.	12/1993- 8/1994
Researcher/Design, Michigan State University Cyclotron Laboratory	5/1993-12/1993
Researcher, Developing Research Expertise at Michigan State University (DREAMS) Program	May-Aug 1992
Program Manager Naval Engineering Command	5/1991-10/1991
Program Manager, Naval Engineering Command	May-Aug 1990

### **INTERNATIONAL/COMMUNITY DEVELOPMENT WORK**

<b>Art of Living Teacher (volunteer)</b>	8/2007 – present
Teach stress-reducing breathing techniques, yoga and meditation on the Salish Kootenai Reservation in Polson, MT, Irkutsk, Russia, Washington, DC, and Syracuse, NY	
<b>Art of Living Teacher – Youth Empowerment Seminar (YES) (volunteer)</b>	11/2007 - present
Taught YES in the Washington DC Juvenile Detention Center, Child Welfare Facilities on the Salish Kootenai Reservation, and in High Schools in Washington, DC	

**NASA Administrator Fellowship Program (NAFP)**

9/2008 – 9/2009

Taught Electrical Engineering Courses at the Salish Kootenai Tribal College  
In Polson Montana, taught/performed African Dance and taught the Art of Living  
Course for stress reduction

**Visiting Scholar at the Namibia Polytechnic School in Windhoek, Namibia**

August 2005

Presented Research at local universities, mentored students, and visited local schools  
and orphanages

**HONORS AND AWARDS**

1. 2008 NASA Robert H. Goddard Award for Outreach
2. NASA Administrators Fellow Recipient 2008-2009
3. High Achievement Award from North Carolina A&T State University for maintaining 4.0 Grade Point Average, April 2003.
4. NASA Ronald E. McNair Fellow at North Carolina A&T State University 1999-2001 Academic School Year.
5. National Science Foundation Fellow 1998 Academic School Year.
6. Special Acts Award at NASA Goddard Space Flight Center November 2002/2003.
7. Cited for Mentoring an Undergraduate Student from Spelman College in 2001.
8. Summer Institute in Engineering and Computer Applications (SIECA) Summer 1999 and Summer 2000.
9. Rahsaan Jackson Presentation Award at NASA/GSFC August 4, 1999.
10. Developing Research Expertise at Michigan State University Summer 1992.

**PROFESSIONAL ORGANIZATIONS**

- National Society Of Black Engineers
- The International Society For Optical Engineering

**PUBLICATIONS**

1. "The Space Flight Laser Knowledge Capture Management Program at NASA GSFC", *presentation* at the published Frontiers in Optics 2007 Laser Science XXIII in San Jose, CA on September 18-19, 2007.
2. Investigation of hermetically sealed commercial LiNbO<sub>3</sub> optical modulator for use in laser/LIDAR space-flight applications (Proceedings Paper) Proceedings Vol. 6713, September 26, 2007.
3. History of Spaceflight Connectors at NASA Goddard Spaceflight Center, <http://misspiggy.gsfc.nasa.gov/photonics/>.
4. Lithium niobate cylinder fiber (Conference Proceedings Paper) September 8, 2006 SPIE Vol: 6343.
5. "Novel inter-core cladding lithium niobate thin-film coated fiber modulator/sensor". October 1, 2005, SPIE Vol. 04.
6. "Gold Metal Cylinder Fiber", October 12, 2005, SPIE Proceedings Vol. 5970.
7. "Wide Band Gain and Amplified Stimulated Emission Measurements in Cd<sub>3</sub>P<sub>2</sub> Cylinder Fiber", September 10, 2004 Paper SPIE No. 5577-019.
8. "Novel inter-core cladding lithium niobate thin-film coated fiber modulator/sensor", December 29, 2003, SPIE Vol. 5347.

**PROFESSIONAL PRESENTATION**

1. Special International Presentation  
Titled: "Sojourn in My Life"

University of Namibia and Polytechnic of Namibia on July 29-August 18, 2005  
Windhoek, Namibia

2. “The Space Flight Laser Knowledge Capture Management Program at NASA GSFC”,  
**presentation** at the published Frontiers in Optics 2007 Laser Science XXIII in San Jose, CA on  
September 18-19, 2007.

#### **PATENTS**

1. h Ca
2. Application Patent on Geofoam Sensor using lithium niobate cylinder fiber– Provisional Patent  
filed 2005.

#### **GRADUATE STUDENTS IN THE LAST FIVE YEARS**

Akshob V. Bangle (M.S. 2004 at Syracuse University)  
Erol Karadeniz (Ph.D. 2005 at Syracuse University)

#### **THESIS ADVISOR**

Dr. Chung Yu at North Carolina A&T State University  
Dr. Philip Kornreich at Syracuse University

#### **MAJOR AREAS OF RESEARCH INTEREST**

1. MAVEN NGIMs
2. Fiber Amplifier/Lasers
3. The Space Qualification and Characterization of Microbolometers
4. NASA GSFC Laser Risk Reduction Program - Nonlinear Materials for High Power Laser  
Applications
5. 2003/04 NASA Director’s Discretionary Fund
  - Characterization of a Semiconductor Fiber Light Amplifier –optical fiber fabricated with a  
thin film of semiconductor material between the core and cladding of an optical fiber.
  - Characterization of Lithium Niobate Fiber Modulator/Sensor – optical fiber fabricated with  
thin film of lithium niobate between the core and cladding of optical fiber.

#### **SERVICE**

International Coordinator for the National Society of Black Engineers at NASA GSFC